INDEX TO ILLUSTRATIONS

American Association of Variable Star Observers, Harvard College Observatory, October 23, 1926, Plate I .....Op. 1
New Haven, Connecticut, May 21, 1927, Plate XIII .....Op. 423
American Astronomical Society, Madison, September, 1927, Plate XIV..Op. 481
Philadelphia, December, 1926, Plate V..Op. 133
Angular momentum, Apparatus for the demonstration of conservation of... 374
Astronomers (Benini, Pickering, Lacchini, Ancarini) at Faenza, Italy..... 168
(Mrs. Pickering, Dr. Steavenson, Mrs. Merton, Mr. Merton) Black Heath, London 445
Canal passing through the earth's center, Newton's figure showing right-angled, cylindric 367
Class in advanced physics, Miss Whiting and her 541
Clocks and thermoregulator in constant temperature room at Elgin Observatory 4
Comet 1927 *d* (Stearns) March 13 227
Orbit of 285
Encke, Orbit of, and orbit of the earth 587
of 1681, Newton's drawing of the orbit of the 369
Pons-Winnecke at discovery, March 3 226
Diagram of orbit of 276, 277
Path of, from June 18 to July 1, 1927..... 352
Photograph of, June 27, 1927 412
Constellation chart 46, 115, 170, 224, 279, 335, 392, 454, 518
Crops, Solar cycle and (curves) 254, 255, 256
Earth as seen from the sun 332, 333, 334
Eclipse of January 3, 1927, Annular (diagram) 39
June 29, 1927, Total (diagram) 40
the moon 1927 June 14-15, Total (diagram) 257
path in the Philippine Islands, May 9, 1929 215
Father Hagen on the roof of his observatory 162
Flamsteed House, Greenwich Observatory 447
Garden of Professor Henri Chrétien's home, St. Cloud, France..... 261
Horizon line (diagram) 250, 251
Howe, Herbert Alonzo, Plate VI .....Op. 191
Isaac Newton, The bust of, in the Royal Observatory at Greenwich, Plate X .....Op. 303
Jupiter, Photographs of, with an 11-inch reflector, Plate XI .....Op. 359
Light-curves of AK Herculis 548, 549
TU Centauri and TW Centauri 508
Mark house at the Elgin Observatory 7
Mars, Cloudy seasons on (diagram) 201
Drawings of, Plates III, IV .....Op. 75
Plates VII, VIII .....Op. 199
Latitude differences on (diagram) 320

Mascart, Professor, Mrs., and their daughters 553
Moon, Close conjunction of Saturn and the, 1927 March 23-24 (diagram) .....Supplement to No. 343
partially eclipsed, The (photograph) 510
Total eclipse of the, 1927 June 14-15 (diagram) 257
Morning and evening stars for 1927 (orbits) 13, 14
Nebula, A black ring, Plate II .....Op. 67
Neptune's motion with reference to the stars 452
Newton's home-made telescope 306
Newton, The bust of Sir Isaac, in the Royal Observatory at Greenwich, Plate X .....Op. 303
Nodes of the moon, Newton's figure used in finding the horary motion of the 366
Nova Aquilae 1927, The spectrum of 448
Microphotometer tracing of 449
Observatory, Elgin 3
Façade of the Cambridge 436
Father Hagen on the roof of his 162
house of Sir William Herschel 440
of Dr. Charles W. Bullock, Astronomical 65
Marseilles, Entrance to the 557
Offices and computing rooms of the 559
Oxford 438
Paris, Entrance to 258
Rear of 260
Royal, Capodimonte, On the roof of the 159
The royal, Arcetri, Italy 166
southern cross 244
Occultation of Saturn 1927 January 28, The (drawings) 10, 11
Orbits, Trajectories and 310
Perry, Thomas Osborne 219
Planets, Apparent paths of, among the stars in 1927 (diagrams).....42, 43
Precession of the equinoxes, Apparatus for demonstrating the, Plate XII, Op. 375
Riefler astronomical clocks of the Elgin observatory 4, 6
Rigge, William F., Plate IX .....Op. 247
Ring nebula, A black, Plate II .....Op. 67
RY Sagittarii, Light-curve of 288
Sarah Frances Whiting, Plate XV .....Op. 539
Satellites, Apparent orbits of, at dates of opposition 44
Saturn and the moon, Close conjunction of, 1927 March 23-24 (diagram) .....Supplement to No. 343
Occultation of, 1927 July 10 (diagram) 330, 331
The occultation of, 1927 January 28 (drawings) 10, 11
Solar cycle and crops (curves) 254, 255, 256
Stars, Morning and evening, for 1927 (orbits) 13, 14
Stellafane, Front of, and group of Springfield Telescope Makers 504
Interior view of 502
South elevation of 501
Storm, The great, of 1788 (diagram) 82
Switchboard and Riefler astronomical clocks at the Elgin Observatory..... 6

Telescope Makers, Group of Springfield, at Stellafane 504
mounting 385
Newton's home-made 306
on roof of house 386
Remains of 40-ft., in the gardens of Observatory House, Slough, England 442
Thermometer cage at the Elgin Observatory 8
Trajectories and orbits 310
Transit instruments of the Elgin Observatory 5
TU Centauri, Light-curve of 508
TW Centauri, Light-curve of 508
Whiting, Sarah Frances, Plate XV ..... Op. 539
Whitin Observatory, Wellesley, Mass. 543

GENERAL INDEX

Absolute magnitudes and parallaxes of 412 M-type stars, *W. S. Adams, A. H. Joy,* and *M. L. Humason* 135
Adams, W. S., A. H. Joy, and *M. L. Humason,* Absolute magnitudes and parallaxes of 412 M-type stars (abstract) 135
Adjustments of stationary coronagraphs with despatch, On the accurate, *David Todd* 267
Allen, Percival R., A turret reflector 384
Alpha Cygni, The parallax of, *Carl L. Stearns* 210
Alter, Dinsmore, Herbert Alonzo Howe 191
Alvan Clark, Jr., A visit to, *John F. Sullivan* 388
Alvan Clark Sr., Two hours with, *Charles Skeele Palmer* 143
American Association of Variable Star Observers—
Annual report of, for 1926 61
1927 584
Monthly report of the 53, 123, 179, 234, 292, 343, 398, 460, 527, 576
American Astronomical Society—
Announcement of the thirty-eighth meeting 353, 414
thirty-ninth meeting 594
Reports of observatories, 1925-1926, (Allegheny, Berkeley, Córdoba, Dominion, Goodsell, Lick) 27-35
Reports of observatories, 1925-1926, (Dearborn, Dominion Astrophysical, Dudley, Leander McCormick, Detroit, Mount Wilson, United States Naval, Princeton University, Smithsonian Astrophysical, Sproul, Van Vleck, Washburn, Yale University, Yerkes) 88-114
Reports of observatories, 1926-1927, (Allegheny, Amherst, Bureau of Standards, Berkeley Students', Cincinnati, Córdoba, Dearborn, Dominion, Dominion Astrophysical) 561-571
Thirty-sixth meeting of the 20
Thirty-seventh meeting of the 133, 207
Thirty-eighth meeting of the 481
American section of the International Astronomical Union, The, *Raymond S. Dugan* 545
Astronomers in Los Angeles, Amateur 188
Astronomer, The undevout, is mad 299
Astronomica Italiana, Memorie della Società 416
Astronomical and meteorological conditions of the eclipse of the sun May 9, 1929, in the Philippines, *Miguel Selga* 214
physical society, The Ft. Worth 302
fraternity of the world, The, *David B. Pickering,* Part I..... 157
Part II..... 258
Part III.... 435
Part IV.... 550
observatory bequest upheld 354
society announcement, Amateur 302
theory, Recent advancement in, *J. D. Boon* 360
Union, The American section of the International, *Raymond S. Dugan* 545

Astronomy, Brevity in 189
by radio 591
Extension course in 478
Fellowship in 189
for the public 478
in fiction 417
Newton's work in, *Sir Frank Dyson* 271
The teaching of, *Harlan True Stetson* 423
S. L. Boothroyd 513
Atlas stellarum variabilium, The VIIth series of the, *J. G. Hagen*..... 314
Barnard atlas of selected regions of the Milky Way, The, *Edwin B. Frost*... 486
Bennett, A. L., The fireballs of December 9, 1926 204
Bennot, Maude, and *Philip Fox*, Stellar parallaxes from the Dearborn Observatory (abstract) 485
Bequest for a professorship in astronomy 592
Betelgeuse, *Frank E. Seagrave* 63
Binaries, The masses and luminosities of eclipsing, *Dean B. McLaughlin*.... 489
Two K-type spectroscopic, *W. E. Harper* 139
Blair, G. B., Where is the horizon on your sky map? 249
Blatchford, John A., and *Edward C. Phillips*, Occultation of Saturn by the moon, 1927 July 10 329
Bobrovnikoff, N. T., On the spectra of comets (abstract) 483
Book Reviews—
Astronomy, John Charles Duncan 131
Russell, Dugan, and Stewart 356
Aus den Tiefen des Raumes 66
Constitution et Evolution de l'Universe 355
Fogs and Clouds 355
Harmonic Curves 66
New dynamical wave-theory of the tides 420
Norton's Star Atlas and Telescopic Handbook 246
Readable Relativity 419
Splendour of the Heavens 355
Sternhaufen 422
Tabelle der Hauptlinien der Linienspectra aller Elemente 190
The British National Almanac for 1929 415
Commonsense of the Theory of Relativity 538
Fundamentals of Astronomy 479
North American Almanac for 1927..... 190
Boon, J. D., Recent advancement in astronomical theory 360
Boothroyd, S. L., The teaching of astronomy 513
Boss, Benjamin, On the variable rotation of the earth (abstract) 483
Brashear, John A., statue unveiled 592
Brown, Ernest W., Gravitational effects in spiral nebulae (abstract) 484
B-type stars, The velocity-figure of the, *Ralph E. Wilson* 26
Burrau, Carl, J. L. E. Dreyer (translated) 325
Calcium lines, On the effect of distance upon the intensities of detached, *Otto Struve* 212
Calendar date of the current day, A method of determining the, *C. E. White* 36
reform in Turkey 418

Calendars, Julian Day 187
Canadian work on the international longitude net, *R. Meldrum Stewart*..... 211
Cannon, Annie J., Sarah Frances Whiting 539
Catalogues, The international zone, *R. H. Tucker* 378
Coblentz, W. W., and *H. T. Stetson*, Report on observations of the corona at the Sumatra eclipse of January 14, 1926 (abstract).... 23
Note on the water-cell transmissions of the radiation from Sirius (abstract) 137
Temperature measurements on the planet Mars, 1926 145
Cometary refraction by periodic comet Pons-Winnecke, A test of, *G. Van Biesbroeck* 499
Comet Delavan 1914 V, The definitive orbit of, *G. Van Biesbroeck*..... 498
Encke 475, 527, 586
Holmes 527
Schaumasse 475, 525, 589
1922 I (Skjellerup) and 1902 II (Grigg) identical 48
1925 *a* (Shajn) 48, 118, 175, 228
b (Reid) 48, 118
g (Brooks) 49
1926 *c* (Kopff) 48
d (Finlay) 48
e (Giacobini-Zinner) 47, 118, 174, 228
f Comas Solá) 47, 118, 174, 229, 286, 350, 412, 589
g (Neujmin) 119, 175, 229
1927 *a* (Blathwayt) 117, 174, 229, 474
b (Reid) 131, 173, 229, 474
c (Pons-Winnecke) ....Supp. to No. 343, 119, 175, 227, 284, 352, 412, ...475, 536
The coming approach of, *G. Van Biesbroeck* 276
d (Stearns) 227, 285, 351, 413, 473, 526, 589
e (Grigg-Skjellerup) 119, 175, 229, 245, 281, 351, 413
f (Gale) 411, 474, 526
i (Schwassmann-Wachmann) 586
notes, *G. Van Biesbroeck* 47, 117, 173, 225, 281, 350, 411, 473, 525, 586
Comets, On the spectra of, *N. T. Bobrovnikoff* 483
Comrie, L. J., Occultation of a seventh magnitude star by Jupiter..... 520
Conjunction of Saturn and the moon, 1927 March 23-24, Close, *Willian F. Rigge* .....Supplement to No. 343
Corona at the Sumatra eclipse of January 14, 1926, Report on observations of the, *H. T. Stetson* and *W. W. Coblentz* 23
Coronagraphs, On the accurate adjustment of stationary, with despatch, *David Todd* 267
Coronal domes, *Frederick Slocum* 21
Correction, A 477
Curtiss, Ralph H., Isaac Newton and his work in astronomy and optics..303, 364
Cygnus, A ring nebula (dark) in, *D. W. Morehouse* 67
Darling, John H., Thomas Osborne Perry 218
Dearborn Observatory, Stellar parallaxes from the, *Philip Fox* and *Maude Bennot* 485

Demonstration apparatus for teachers of astronomy, Two new pieces of, *H. T. Stetson* 373
equipment for astronomy teachers, New, *H. W. Geromanos*.. 487
Distribution of stars, Some systematic features in the, *Frederick H. Seares*.. 208
Donati, The centenary of the birth of 418
Double star B.D. +66°34, Note on the, *A. Vyssotsky* 213
measures, Systematic differences in, *Charles P. Olivier*..... 207
stars, Eighty-five new 416
Dreyer, J. L. E. (translation), *Carl Burrau* 325
Dugan, Raymond S., The American section of the International Astronomical Union 545
Dustheimer, O. L., Spectroscopic observation of ϕ Persei (abstract)..... 484
Dyson, Sir Frank, Newton's work in astronomy 271
Earth as seen from the sun, The, *Frederick R. Honey* 332
On the variable rotation of the, *Benjamin Boss* 483
Easter, A method of finding the date of, without using a table, *C. E. White*... 37
Eclipse expedition to Norway 301
of January 14, 1926, Report on observations of the corona at the Sumatra, *H. T. Stetson* and *W. W. Coblentz* 23
June 15, 1927, Lunar, *G. H. Hamilton* 510
June 29, 1927, The 222
in England 422
total, *S. A. Mitchell* 433
Van Vleck Observatory expedition to Norway for the, *Frederick Slocum* 492
the moon 1927 June 14-15, Total, *William F. Rigge*..... 257
sun May 9, 1929, in the Philippines, Astronomical and meteorological conditions of the, *Miguel Selga* 214
Eclipses of 1927, The lunar, *Willard J. Fisher* 265
Eclipsing binaries, The masses and luminosities of, *Dean B. McLaughlin*.... 489
Editors' note 169
Elgin observatory, *W. W. Payne* 1
Elvey, C. T., The contour of the hydrogen absorption lines in Nova Aquilae 1918 (abstract) 138
Eros comparison stars, Meridian-circle observations of, *Elliot Smith*..... 493
Errata 419
Examination, Junior astronomer 245
Fireball, A beautiful 476
Fireballs of December 9, 1926, The, *A. L. Bennett* 204
Fisher, Willard J., Projects for meteor photography 511
The lunar eclipses of 1927 265
Fox, Phillip, and *Maude Bennot*, Stellar parallaxes from the Dearborn Observatory (abstract) 485
Franklin Institute, The 537
Frost, Edwin B., The Barnard atlas of selected regions of the Milky Way (abstract) 486
Fundamentalism, On 417
Geromanos, H. W., New demonstration equipment for astronomy teachers (abstract) 487

Graphical determination of orbits of visual binary stars, *J. J. Nassau* and *P. D. Wilkins* 491
Gravitational effects in spiral nebulae, *Ernest W. Brown* 484
Hagen, J. G., The VIIth series of the atlas stellarum variabilium 314
Hamilton, G. H., Lunar eclipse of June 15, 1927 510
Harper, W. E., Two K-type spectroscopic binaries (abstract) 139
Henroteau, F., The motion of the pseudo-Cepheids (abstract) 139
Harvard College observatory station 301
Honey, Frederic R., Morning and evening stars for 1927 12
The earth as seen from the sun 332
Horizon on your sky map?, Where is the, *G. B. Blair* 249
Howe, Herbert Alonzo, *Dinsmore Alter* 191
Huffer, C. M., A photometric survey of red stars (abstract) 487
Humason, M. L., W. S. Adams, and *A. H. Joy,* Absolute magnitudes and parallaxes of 412 M-type stars (abstract) 135
Hydrogen absorption lines in Nova Aquilae 1918, The contour of the, *C. T. Elvey* 138
Illusion, The moon 85
Imperial University of Tokyo, The faculty of science of the 64
International Astronomical Union meeting 300
zone catalogues, The, *R. H. Tucker* 378
Jacobsen, T. S., and *Joel Stebbins*, Tests of the solar variation by photometric measures of Uranus (abstract) 494
Joy, A. H., W. S. Adams, and *M. L. Humason,* Absolute magnitudes and parallaxes of 412 M-type stars (abstract) 135
Jupiter, A correction and note concerning 477
and Saturn, The spectra of, *Donald H. Menzel* 489
Photographing, *Latimer J. Wilson* 359
Jupiter's satellites, Phenomena of 338, 394, 455, 520
Laboratories, Long-period variable stars as physical, *Paul W. Merrill*..... 220
Lambert, Walter D., The variation of latitude and the fluctuations in the motion of the moon (abstract) 140
Latitude and the fluctuations in the motion of the moon, The variation of, *Walter D. Lambert* 140
variation station 478
Law of planetary distances and orbital velocities, A new, *Hsin P. Soh*..... 327
Life in the universe 245
Light, On an apparent decrease in the velocity of 537
Longitude net, Canadian work on the international, *R. Meldrum Stewart*.... 211
Long-period variable stars, The photographic study of, *Harlow Shapley* and *W. F. H. Waterfield* 505
Losh, Hazel Marie, and *Seth B. Nicholson*, Sun-spot activity in the present cycle (abstract) 141
The velocity-curves and period of ζ Tauri (abstract)... 488
Lunar appulse, The, of 1926 December 18-19, *William F. Rigge* 20
Mars, Photographic and visual observations of, in 1926, *E. C. Slipher*..... 210
Report on, No. 38, *William H. Pickering* 69
No. 39, *William H. Pickering* 195
No. 40, *William H. Pickering* 317
1926, Temperature measurements on the planet, *W. W. Coblentz* 145

Mathematical Association of America, The 594
McCabe, James, William F. Rigge 247
McLaughlin, Dean B., A comparison of certain regions of the Milky Way (abstract) 142
The masses and luminosities of eclipsing binaries (abstract) 489
Menzel, Donald H., The spectra of Jupiter and Saturn (abstract) 489
Merrill, Paul W., Long-period variable stars as physical laboratories..... 220
Meteor, A remarkable, connected with the Winnecke comet, photographed at Mukden, Manchuria, *Issei Yamamoto* 499
notes, *Charles P. Olivier* 49, 116, 172, 229, 286, 349, 409, 472, 533, 590
observations 131, 354, 476, 535
photography, Projects for, *Willard J. Fisher* 511
The Tilden, *C. C. Wylie* 453
Meteors, Report of the committee on, *Charles P. Olivier* 26
Milky Way, A comparison of certain regions of the, *Dean B. McLaughlin*.. 142
The Barnard atlas of selected regions of the, *Edwin B. Frost*... 486
Misunderstanding, A 189
Mitchell, S. A., The total eclipse of 1927 433
The trigonometric parallax of o Ceti (abstract) 140
Moon illusion, The 85
1927 June 14-15, Total eclipse of the, *William F. Rigge* 257
Morehouse, D. W., A ring nebula (dark) in Cygnus 67
Morgan, W. W., Observations of the short-period variable AK Herculis.... 547
Spectroscopic and photometric observations of CP Cygni (abstract) 490
Morning and evening stars for 1927, *Frederic R. Honey*..... 12
Nassau, J. J., and *P. D. Wilkins,* Graphical determination of orbits of visual binary stars (abstract) 491
Nebula (Dark) in Cygnus, A ring, *D. W. Morehouse* 67
Neighbors, The, *Frank Schlesinger* 63
Neptune, An opportunity for amateurs to view and study, *Ruel W. Roberts*.. 450
Newton bicentenary in Italy 416
Isaac, and his work in astronomy and optics, *Ralph H. Curtiss* 303, 364
commemoration 593
Newton's, Sir Isaac, anniversary observed 301
Bi-centenary 301
work in astronomy, *Sir Frank Dyson* 271
Nicholson, Seth B., and *Hazel Maric Losh,* Sun-spot activity in the present cycle (abstract) 141
Nova 593
Aquilae 1918, The contour of the hydrogen absorption lines in, *C. T. Elvey* 138
1927, *Otto Struve* 448
The spectrum of, *Otto Struve* 496
Observation notes from the Georgetown College Observatory 475
Observatory at Bloemfontein 537
by day, A student's impression of the 417
Elgin, *W. W. Payne* 1
Observation notes from the Georgetown College 475

Observatory proposed for Baldwin-Wallace College 415
"Silo" proves to be an astronomical 65
The Southern Cross 189, 244, 538
Occultation of a seventh magnitude star by Jupiter, *L. J. Comrie* 520
B.D. —3°5697 by Jupiter 593
Saturn by the moon, 1927 July 10, *Edward C. Phillips* and *John A. Blatchford* 329
January 28, 1927, The, *William F. Rigge* 10
March 24, 1927, Note on the 299
Occultations observed at Leonia, N. J., Some recent 187
Personal equation in observing, *E. C. Phillips* 491
Reductions of 354
Request for more observations of, *Ernest W. Brown* 17
visible at Washington 47, 116, 337, 393, 456, 519, 572
Olivier, Charles P., Meteor notes 49, 116, 172, 229, 286, 349, 409, 472, 533, 590
Report of the committee on meteors 26
Systematic differences in double star measures (abstract) 207
o Ceti, The trigonometric parallax of, *S. A. Mitchell* 140
Palmer, Charles Skeele, Two hours with Alvan Clark, Sr. 143
Parallax of Alpha Cygni, The, *Carl L. Stearns* 210
o Ceti, The trigonometric, *S. A. Mitchell* 140
Parallaxes and absolute magnitudes of 412 M-type stars, *W. S. Adams, A. H. Joy*, and *M. L. Humason* 135
from the Dearborn Observatory, Stellar, *Philip Fox* and *Maude Bennot* 485
Payne, W. W., Elgin Observatory 1
Perry, Thomas Osborne, *John H. Darling* 218
Personal equation in observing occultations, *E. C. Phillips* 491
notices 63, 129, 186, 242, 300, 353, 414, 478, 536, 591
Phenomena for 1927 39
ϕ Persei, Spectroscopic observation of, *O. L. Dustheimer* 484
Phillips, Edward C., and *John A. Blatchford*, Occultation of Saturn by the moon, 1927 July 10 329
Personal equation in observing occultations (abstract) 491
Photometric and spectroscopic observations of CP Cygni, *W. W. Morgan*.... 490
survey of red stars, A, *C. M. Huffer* 487
Pickering, David B., The astronomical fraternity of the world, Part I..... 157
Part II..... 258
Part III.... 435
Part IV.... 550
Pickering, William H., Report on Mars, No. 38..... 69
No. 39..... 195
No. 40..... 317
Planetary distances and orbital velocities, A new law of, *Hsin P. Soh* 327
observations, Notes on, *E. C. Slipher* 20
Planet notes, *Clifford E. Smith* 45, 114, 170, 224, 279, 335, 391, 455, 518, 571
Pons-Winnecke, The coming approach of comet, *G. Van Biesbroeck*..... 276
Porter, J. G., Recent textbooks and relativity 193
Porter, Russel W., Stellafane 501
Position of the moon from solar eclipse photographs, The, *Carl L. Stearns*.. 22

Pseudo-Cepheids, The motion of the, *F. Henroteau* 139
Radial velocities, On the K-term in, *Ralph E .Wilson* 497
Radiation from Sirius, Note on the water-cell transmissions of the radiation from, *W. W. Coblentz* 137
Radio time signals 417
Reading the time from the stars, *L. M. Berkeley* 15
Reflector, A turret, *Percival R. Allen* 384
Relativity, Recent textbooks and, *J. G. Porter* 193
Report on Mars, No. 38, *William H. Pickering* 69
No. 39, *William H. Pickering* 195
No. 40, *William H. Pickering* 317
Request, A 536
for more observations of occultations, *Ernest W. Brown* 17
Research fellowship at the Harvard Observatory, New 592
Rigge, William F., Close conjunction of Saturn and the moon, 1927 March 23-24 .....Supplement to No. 343
The lunar appulse of 1926 December 18-19 (abstract)... 20
occultation of Saturn 1927 January 28 10
Total eclipse of the moon 1927 June 14-15 257
Rigge, William F., *James McCabe* 247
Roberts, Ruel W., An opportunity for amateurs to view and study Neptune.. 450
Ross, Frank E., Photographs of Venus 492
Rotation of the earth, On the variable, *Benjamin Boss* 483
Rumford medal of the Royal Society, The 64
Sarah Frances Whiting, *Annie J. Cannon* 539
Saturn and the moon, Close conjunction of, 1927 March 23-24, *William F. Rigge* .....Supplement to No. 343
Note on the occultation of, March 24, 1927 299
The occultation of, 1927 January 28, *William F. Rigge* 10
spectra of Jupiter and, *Donald H. Menzel* 489
Saturn's satellites 337, 393
Schlesinger, Frank, The neighbors 63
Science by radio 188
congress, The fourth Pan-Pacific 416
Scientific American in a new form 416
Seagrave, Frank E., Betelgeuse 63
Seares, Frederick H., Some systematic features in the distribution of stars (abstract) 208
Selga, Miguel, Astronomical and meteorological conditions of the eclipse of the sun May 9, 1929, in the Philippines 214
Shapley, Harlow, and *W. F. H. Waterfield*, The photographic study of long-period variable stars 505
Sigma Xi 130
Sirius, Note on the water-cell transmissions of the radiation from, *W. W. Coblentz* 137
Sky for April, The, *Clifford E. Smith* 171
June, The, *Clifford E. Smith* 280
Slipher, E. C., Notes on planetary observations (abstract) 20
Photographic and visual observations of Mars in 1926 (abstract) 210

Slocum, Frederick, Coronal domes (abstract) 21
The Van Vleck Observatory expedition to Norway for the eclipse of June 29, 1927 (abstract) 492
Two telescopes of historic interest (abstract) 210
Smith, Clifford E., Planet notes 45, 114, 170, 224, 279, 335, 391, 455, 518, 571
The sky for April 171
June 280
Smith, Elliot, Meridian-circle observations of Eros comparison stars (abstract) 493
Soh, Hsin P., A new law of planetary distances and orbital velocities..... 327
Solar constant, Second report on the light-variations of the satellites of Jupiter and their application to measures of the, *Joel Stebbins* 211
The light-variations of the satellites of Jupiter and their application to measures of the, *Joel Stebbins* 22
cycle in temperature and in crops, The, *Charles Clayton Wylie* 253
photographs, A modified form of the projection method for the reduction of, *Harlan True Stetson* 494
variation by photometric measures of Uranus, Tests of the, *Joel Stebbins* and *T. S. Jacobsen* 494
Southern station of the Harvard Observatory, The 592
Space, A model for inter-nebular 418
Spectra of comets, On the, *N. T. Bobrovnikoff* 483
Jupiter and Saturn, The, *Donald H. Menzel* 489
Spectroscopic and photometric observations of CP Cygni, *W. W. Morgan*... 490
binaries, Two K-type, *W. E. Harper* 139
observation of ϕ Persei, *O. L. Dustheimer* 484
Spiral nebulae, Gravitational effects in, *Ernest W. Brown* 484
Star catalogues 416
Stars, A survey of the 243
for 1927, Morning and Evening, *Frederic R. Honey* 12
Reading the time from the, *L. M. Berkeley* 15
Some systematic features in the distribution of, *Frederick H. Seares*.. 208
Stearns, Carl L., The parallax of Alpha Cygni (abstract) 210
position of the moon from solar eclipse photographs (abstract) 22
Stebbins, Joel, and *T. S. Jacobsen,* Tests of the solar variation by photometric measures of Uranus (abstract) 494
Second report on the light-variations of the satellites of Jupiter and their application to measures of the solar constant (abstract) 211
The light-variations of the satellites of Jupiter and their application to measures of the solar constant (abstract)..... 22
Stellafane, *Russel W. Porter* 501
Stellarum variabilium, The VIIth series of the atlas, *J. G. Hagen*..... 314
Stetson, Harlan True, A modified form of the projection method for the reduction of solar photographs (abstract) 494
and *W. W. Coblentz,* Report on observations of the corona at the Sumatra eclipse of January 14, 1926 (abstract) 23

Stetson, Harlan True, The teaching of astronomy 423
Two new pieces of demonstration apparatus for teachers of astronomy 373
Stewart, R. Meldrum, Canadian work on the international longitude net (abstract) 211
Struve, Otto, Nova Aquilae 1927 448
On the effect of distance upon the intensities of detached calcium lines (abstract) 212
The spectrum of Nova Aquilae 1927 (abstract) 496
Sullivan, John F., A visit to Alvan Clark, Jr. 388
Sun-spot activity in the present cycle, *Seth B. Nicholson* and *Hazel Marie Losh* 141
observations of Mt. Holyoke college, 1926, Summary of 187
Teaching of astronomy, The, *Harlan True Stetson* 423
S. L. Boothroyd 513
Teachers of astronomy, Two new pieces of demonstration apparatus for, *H. T. Stetson* 373
Telescope for Royal Observatory, Edinburgh, Large 418
the University of Kansas, A new 130
The Ritchey-Dina 301
Telescopes of historic interest, Two, *Frederick Slocum* 210
Temperature measurements on the planet Mars, 1926, *W. W. Coblentz* 145
The solar cycle in, and in crops, *Charles Clayton Wylie* 253
Textbooks and relativity, Recent, *J. G. Porter* 193
Time from the stars, Reading the, *L. M. Berkeley* 15
Todd, David, On the accurate adjustment of stationary coronagraphs with despatch 267
Tucker, R. H., The international zone catalogues 378
Turret reflector, A, *Percival R. Allen* 384
Universe, Life in the 245
University of Munster, The 537
Van Biesbroeck, G., A test of cometary refraction by periodic comet Pons-Winnecke (abstract) 499
Comet notes 47, 117, 173, 225, 281, 350, 411, 473, 525, 586
The coming approach of comet Pons-Winnecke 276
definitive orbit of comet Delavan 1914 V (abstract) 498
Variable AK Herculis, Observations of the short-period, *W. W. Morgan* 547
ε Aurigae, The 535
star observations 54, 124, 180, 235, 293, 343, 400, 461, 528, 577
observers, Annual report of the American Association of, for 1926 61
1927 584
Monthly report of the American Association of..... .....53, 123, 179, 234, 292, 343, 398, 460, 527, 576
RY Sagittarii 288
stars, as physical laboratories, Long-period, *Paul W. Merrill* 220
in the region 15 degrees square around Messier 11, A survey of the, *Margaret L. Walton* 25
Maxima of, of short period 52, 122, 178, 233, 291, 339, 397, 459, 521, 572

Variable stars, Minima of, of short period .....
.....50, 120, 176, 231, 289, 341, 395, 457, 523, 574
Variables, Long-period 230
Variation of latitude and the fluctuations in the motion of the moon, The, *Walter D. Lambert* 140
Velocity-curves and period of ζ Tauri, The, *Hazel Marie Losh* 488
Velocity-figure of the B-type stars, The, *Ralph E. Wilson* 26
Venus, Photographs of, *Frank E. Ross* 492
Vyssotsky, A., Note on the double star B.D. +66°34 (abstract) 213
Walton, Margaret L., A survey of the variable stars in the region 15 degrees square around Messier 11 (abstract) 25
Watchers of the night 477
Waterfield, W. F. H., and *Harlow Shapley*, The photographic study of long-period variable stars 505
White, C. E., A method of determining the calendar date of the current day 36
finding the date of Easter without using a table 37
Whiting, Sarah Frances, *Annie J. Cannon* 539
Wilkins, P. D., and *J. J. Nassau*, Graphical determination of orbits of visual binary stars (abstract) 491
Wilson, Latimer J., Photographing Jupiter 359
Wilson, Ralph E., On the K-term in radial velocities (abstract) 497
The velocity-figure of the B-type stars (abstract) 26
Wylie, Charles Clayton, The solar cycle in temperature and in crops 253
Tilden meteor 453
Yamamoto, Issei, A remarkable meteor, connected with the Winnecke comet, photographed at Mukden, Manchuria (abstract) 499
Young, Charles A., Professorship 354